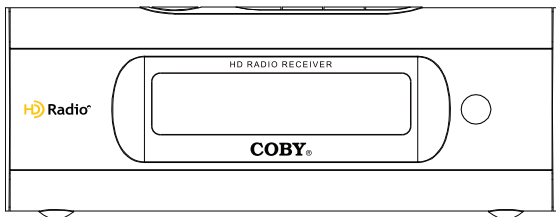


# COBY®

Digital AM/FM Receiver with  
HD Radio Technology



HDR-650



## Instruction Manual

Please read this manual carefully before operation

# Precautions

	<b>CAUTION</b> WARNING: SHOCK HAZARD, DO NOT OPEN. AVIS: RISQUE DE CHOC ELECTRIQUE. NE PAS OUVRIIR	
<b>CAUTION:</b> TO REDUCE THE RISK OF FIRE AND ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK) OF THE UNIT. REFER SERVICING ONLY TO QUALIFIED SERVICE PERSONNEL.		



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operation and servicing instructions in the literature accompanying the appliance.

### ***For Customer Use:***

Enter below the serial number that is located on the rear of the unit. Retain this information for future reference.

Model No. \_\_\_\_\_ HDR-650 \_\_\_\_\_

Serial No. \_\_\_\_\_

**WARNING:** To prevent fire or shock hazard, do not expose this device to rain or moisture. Dangerous high voltage is present inside the enclosure. Do not open the cabinet.

**CAUTION:** To prevent electric shock, match wide blade of plug to wide slot of outlet and fully insert.

**Protect your hearing:** Hearing experts advise against the constant use of personal stereos played at high volume. Constant exposure to high volumes can lead to hearing loss. If you should experience ringing in the ears or hearing loss, discontinue use and seek medical advice.

# Precautions

## FCC Statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**Note:** This equipment has been tested and found to comply with the limits for Class B digital devices, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Use of shielded cable is required to comply with Class B limits in Subpart B of Part 15 of the FCC rules.

Do not make any changes or modifications to the equipment unless otherwise specified in the manual. If such changes or modifications should be made, you could be required to stop operation of the equipment.

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For recycling or disposal information about this product, please contact your local authorities or the Electronics Industries Alliance: [www.eiae.org](http://www.eiae.org).

# Important Safety Instructions

1. **Read Instructions:** All the safety and operating instructions should be read before the product is operated.
2. **Retain Instructions:** The safety and operating instructions should be retained for future reference.
3. **Heed Warnings:** All warnings on the product and in the operating instructions should be adhered to.
4. **Follow Instructions:** All operating and usage instructions should be followed.
5. **Cleaning:** Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
6. **Attachments:** Use only attachments recommended by the manufacturer. Use of other attachments may be hazardous.
7. **Water and Moisture:** Do not use this product near water (e.g., near a bath tub, washbowl, kitchen sink, laundry tub, in wet basements, or near a swimming pool and the like).

8. **Accessories:** Do not place this product on an unstable cart, stand, tripod, bracket, or table. Use only with carts, stands, tripods, brackets, or tables recommended by the manufacturer or sold with the product. Any mounting of the product should follow the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.



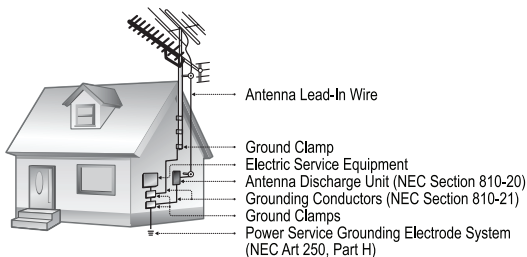
A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.

9. **Ventilation:** Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the product and to protect it from overheating. These openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer instructions have been adhered to.
10. **Power Sources:** This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company. For products intended to operate from battery power or other sources, refer to the operating instructions.
11. **Grounding or Polarization:** This product may be equipped with a polarized alternating-current line plug that has one blade wider than the other.

# Important Safety Instructions

This plug will only fit into the power outlet in one direction. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the direction of the plug. If the plug should still fail to fit, contact an electrician to replace the obsolete outlet. Do not defeat the safety purpose of the polarized plug.

12. **Power-Cord Protection:** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and at the point which they exit from the product.
13. **Protective Attachment Plug:** The product may be equipped with an attachment plug with overload protection. This is a safety feature. See the operating instructions for replacement or directions to reset the protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug that has the same overload protection as the original plug as specified by the manufacturer.
14. **Outdoor Antenna Grounding:** If an outside antenna is connected to the product, be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANS/NFPA 70 provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode (see figure).



15. **Lightning:** For added protection for this product, unplug it from the wall outlet and disconnect the antenna or cable system during a lightning storm or when it is left unattended and unused for long periods of time. This will prevent damage to the product due to lightning or power-line surges.

# Important Safety Instructions

16. **Overloading:** Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
17. **Object and Liquid Entry:** Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
18. **Servicing:** Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
19. **Damage Requiring Service:** Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions: a) when the power-supply or plug is damaged; b) if liquid has been spilled or if objects have fallen into the product; c) if the product has been exposed to rain or water; d) if the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation; e) if the product has been dropped or damaged in any way; f) when the product exhibits a distinct change in performance—this indicates a need for service.
20. **Replacement Parts:** When replacement parts are required, be sure that your service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
21. **Safety Check:** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to ensure that the product is in proper operating condition.
22. **Wall or Ceiling Mounting:** The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
23. **Heat:** The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.
24. The mains plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
25. Please read Rating Labels at the bottom of the Sender and Receiver for power input and other safety information.

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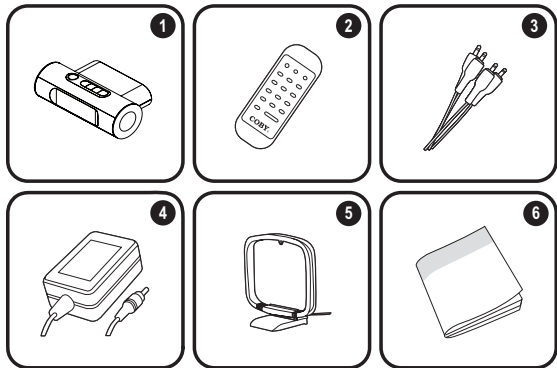
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# Package Contents

Please make sure that the items shown below are included in the package. Should an item be missing, please contact the local retailer from which you purchased this product.



1. HDR-650
2. Remote Control
3. RCA Audio Cable
4. 100-240V AC Power Supply
5. AM Loop Antenna
6. Instruction Booklet

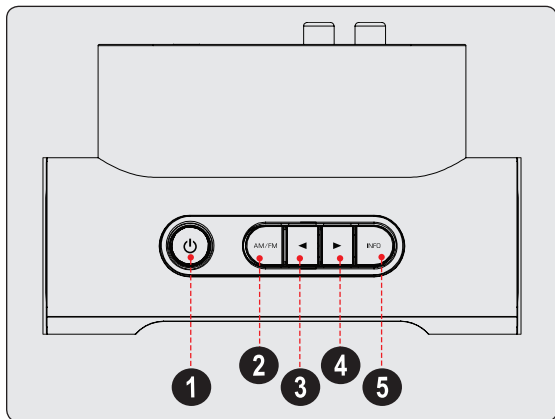
# Features

- ✦ HD Radio tuner receives crystal clear digital broadcasts with no subscription fees
- ✦ Receives AM and FM analog broadcasts
- ✦ 10-station preset memory
- ✦ High-contrast LCD display with backlight
- ✦ Brushed aluminum casing designed to complement your other components in style
- ✦ Stereo RCA connectors for use with home audio systems
- ✦ 3.5mm headphone jack
- ✦ Full function remote control

# Getting Started

## HDR-650 at a Glance

### Top View



1. Power On/Off



4. Right



2. Band Select



5. Info

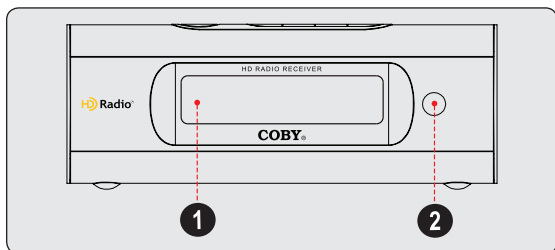


3. Left



# Getting Started

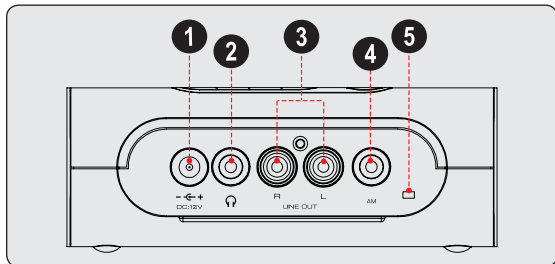
## Front View



1. Display

2. Remote Sensor

## Rear View



1. Power In Jack (DC 12V)

2. Headphone Out

3. RCA Audio Out (Right/Left)










4. AM Antenna Input

5. FM Antenna Lead





# Getting Started

## Remote Control at a Glance

See the sections “Using the HDR-650” and “Setting the Radio Options” for detailed operation instructions.

Key	Function
	Turn the unit on or off.
	Toggle between the AM and FM bands.
	Access the radio menu.
	Tune to a lower station. Go to the previous item (left).
	Tune to a higher station. Go to the next item (right).
	Select the current item.
	Access the auto-seek function.
	Display station information.
	Increase the volume level.

# Getting Started

Key	Function
	Decrease the volume level.
	Turn the alarm on or off.
	Enable the sleep timer.
	Delay the alarm (snooze).
Presets 1 to 10	Tune to preset stations 1 to 10.

# Getting Started

## Connections

### Connecting to an Amplifier or Receiver

1. Connect one end of the RCA audio cable (white and red) to the Audio Out jacks (L and R) located on the rear of the HDR-650.
2. Connect the other end of the cable to the Audio Line-In jacks of an amplifier or receiver (white, red).
3. Set the amplifier/receiver to the source input that corresponds with the Audio Line-In jacks. Refer to the documentation that comes with your amplifier/receiver for more information.



For optimal volume control and audio fidelity, set the volume level of the HDR-650 to approximately 80%, and then adjust the volume to the desired level with the controls of your amplifier/receiver.

### AM Antenna

The unit comes with an AM loop antenna designed specifically to receive AM signals.

1. Plug the AM loop antenna into the AM Antenna Input port located on the rear of the unit.
2. Position and orient the antenna well away from the unit for best reception.

# Getting Started

## FM Antenna

The unit comes with a fixed FM wire antenna.

- ✦ Adjust the orientation of the antenna for best reception.

## Headphones (Optional)

Connect headphones/earphones to the Headphone Out jack for private listening.

- ✦ Lower the volume level before connecting headphones, then gradually increase the volume for comfortable listening.



Hearing experts advise against the constant use of personal stereos played at high volume. Constant high-volume use can lead to hearing loss. If you experience ringing in your ears or hearing loss, discontinue use immediately and seek medical advice.

## Connecting Power

Your HD radio should be connected to an AC 100-240V wall outlet.

- ✦ Using the supplied power adapter, plug one end of the adapter to the unit's Power In Jack and plug the other end into an AC 100-240V wall outlet.



Do not connect the power plug to a power outlet other than that which is indicated here or on the label as this may result in the risk of fire or electric shock.

Use only the AC adapter supplied. Failure to do so may cause a fire or damage the unit.



# Using the HDR-650



## Turning on the Radio

Press  to turn on the radio.

**HD Radio  
Please Wait...**

To turn off the radio, press  again.

## Adjusting the Volume

Press  or  on the remote to adjust the radio volume to the desired level.



This will only adjust the volume when headphones are connected to the unit. When the unit is connected to an amp or receiver, use the volume controls of those devices to adjust the radio's volume.

## Selecting a Band (AM/FM)

### **AM Mode**

Press  until it displays an AM station.

**AM 1180 KHz**

# Using the HDR-650

## FM Mode

Press **AM/FM** until it displays an FM station.

**FM 88.1 MHz**

## Tuning to a Station

If no signal is found in your area, it may be necessary for you to relocate your radio.












HD Radio Technology enables AM and FM radio stations to broadcast their programs digitally—a tremendous technological leap from the analog broadcasts of the past.

To find stations broadcasting in your area, please visit [www.HDRadio.com](http://www.HDRadio.com) and click on “Find a Station”.

## Manual Tuning

Press  or  to cycle through the available stations.

- ✦ Press  to tune to a lower station frequency or press  to tune to a higher station frequency.
- ✦ Press and hold  or  to quickly scan through station frequencies. The radio will tune to the frequency that  or  is released on.
- ✦ To auto-seek to the next available station frequency:
  1. Press  on the remote.
  2. Press  or  to tune.

# Using the HDR-650

## Preset Tuning

To select a stored AM/FM station:

- ✦ Press the numeric button (1-10) on the remote control that corresponds to the desired preset station.

**To store station presets, see “Setting Station Presets” on page 21.**

## HD Radio Multicast Stations

HD Radio technology allows for multiple simultaneous broadcasts, thus expanding the number of programs available to listeners under a single station frequency.

If a multicast station is available in your area, the station number will be indicated on the display as follows:

**FM 105.9-1 HD**

**Primary Station**

**FM 105.9-2 HD**

**2nd HD radio station in FM 105.9**

# Using the HDR-650

## To seek for an HD radio station:

1. With the remote control, press  ("HD SEEK" will be selected). Press  to confirm.

**\* HD SEEK \***  
**FM 101.1 MHz**

2. Press  or  to begin auto-seeking.

**HD SEEKING...**  
**FM 101.1 MHz**

3. The display will indicate "HD" when an HD radio station is available.

**FM 105.9 HD**

# HDR-650 Options

## Setting Station Presets

Your HD radio can store 10 AM and 10 FM presets. To store the current station:


1. Tune to the station you would like to preset.

**AM 1180 KHz**


2. Press and hold one of the numerical buttons on the remote control (1-10).
3. The station will be preset to that numerical button.

**01 AM 1180 KHz**

## Viewing Station Information

1. Press  on the remote control. The display will show 'Station Name' or 'Artist - Title'.

**FM 99.9 MHz**  
**Station Name**

2. To view the next information screen, simply press  once more.

**FM 99.9 MHz**  
**Artist - Title**




# Setting the Radio Options

## Setting the Clock




Using the remote control:

1. Press , and then press  or  to select CLOCK. Press  to confirm.

\*\*\* MENU \*\*\*  
CLOCK

2. Press  or  to set the hour. Press  to confirm.

AM 08:26

3. Press  or  to set the minutes. Press  to confirm.





AM 09:26

The time is now set. The display will show the name of the current radio station without delay.




# Setting the Radio Options

## Setting the Alarm Timer




Using the remote control:

1. Press , and then press  or  to select ALARM. Press  to confirm.




\*\*\* MENU \*\*\*  
ALARM

2. Press  or  to set the alarm hour. Press  to confirm.

AM 12:02

3. Press  or  to set the alarm minutes. Press  to confirm.

PM 01:30

4. Press  or  to set the sound between buzzer and tuner. Press  to confirm.

PM 01:30  
BUZZER




Do not press a button for 3 seconds. The alarm settings will be stored. The display will show the name of the current radio station without delay

# Setting the Radio Options

- ✦ In Standby mode, the alarm time will be shown in parentheses below the clock time.


**AM 09:26**  
**(PM 01:30 📶)**

- ✦ To view the alarm settings, simply press  on the remote control.

**FM 88.1 MHz**  
**(PM 01:30 📶)**

- ✦ Press  once more to turn the alarm off.

**FM 88.1 MHz**  
**( OFF 📶)**

- ✦ When the Alarm turns on, press any button to turn off the alarm, or press  to delay the alarm. The alarm will sound again after 9 minutes.



# Troubleshooting

If you have a problem with this device, please read the troubleshooting guide below and check our website at [www.cobyusa.com](http://www.cobyusa.com) for Frequently Asked Questions (FAQs) and firmware updates. If these resources do not resolve the problem, please contact Technical Support.

<b>Address</b>	COBY Electronics Technical Support 56-65 Rust Street Maspeth, NY 11378	
<b>Email</b>	techsupport@cobyusa.com	
<b>Web</b>	www.cobyusa.com	
<b>Phone</b>	800-727-3592:	Weekdays 8:00AM–11:00PM EST Weekends 9:00AM–5:30PM EST
	718-416-3197:	Weekdays 8:00AM–5:30PM EST

# Specifications

Frequency Ranges	AM (530 - 1710 KHz) FM (87.7 – 107.9 MHz)
Antenna	FM wire antenna AM loop antenna
Output	3.5mm stereo headphone (32 $\Omega$ ) RCA Audio Out (47k $\Omega$ )
Display	2-line display, 16 characters
Power Supply	12V DC
Dimensions	5.1" x 3.1" x 1.9" (WHD)

*Specifications and manual are subject to change without prior notice.*

# Notes

## **Coby Electronics Corporation**

1991 Marcus Avenue, Suite 301  
Lake Success, NY 11042

[www.cobyusa.com](http://www.cobyusa.com)

[www.ecoby.com](http://www.ecoby.com)

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